



RESEARCH REPORT

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R&D REPUTATION AND CORPORATE BRAND VALUE

Corporate R&D is under pressure. Whereas innovative technology remains one of the most important business growth factors, it is difficult to link the outcomes of corporate R&D activities directly to a firm's market performance. Although new technologies mostly originate from R&D laboratories, their market success depends on multiple production, marketing, and sales-related factors that eclipse the research contribution.

Those corporate R&D centers that have survived have increasingly financed their resources through business-unit contracts and third-party funding (1). For instance, in the early 1990s, ABB's corporate research was 80

percent financed by corporate money while today about 70 percent comes from the business units. And Siemens is transforming large parts of its centralized Corporate Technology R&D department to in-house consulting, while IBM has established its industry solution labs to provide external clients with access to its research results, and thus gain research-related income for the corporation.

When the allocation of corporate money to R&D is reduced in favor of contract research assignments, the capability to attract the right resources—individuals and institutional partners—from an open-innovation

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ecosystem becomes a decisive success factor for technology companies. Moreover, a higher R&D intensity supports a stronger corporate brand, as can be seen from the analysis of 22 technology companies depicted in Figure 1.

Reputation management is an important factor in attracting partners and external funding. From interviews with CEOs and CTOs of nine large industrial and publicly-funded firms (2), we have a clear indication that a corporate R&D lab's well-managed reputation has a direct impact on the firm's brand value. In other words, corporate research labs should not be measured only by their technological outcome, but also by the impact they have on a firm's brand value, for which the Interbrand ranking serves as a well-known reference for publicly traded companies (3).

How the Study Was Conducted

The brand valuation method of the market research institution Interbrand is a combined approach based on the forecasting of current and future brand revenues minus business-related costs and a scoring of customers' intentions to purchase a particular brand. R&D expenditures are costs and, therefore, excluded in Interbrand's valuation method.

In our empirical survey, 113 mostly German and Swiss industrial R&D stakeholders were asked to rank 33 European R&D institutions—mainly in the technology

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sector—with respect to their overall reputations. We then asked the respondents to assess the key criteria that determined their ranking (see Figure 2).

We found that a corporate R&D center's popular visibility in terms of its coverage in the news, as well as in popular science and business media, significantly and positively affects its sourcing capabilities. Furthermore, there is a significant relationship between a corporate R&D organization's willingness to take risks and an external organization's decision to partner with it. This suggests that the better a prospective external partner perceives the R&D organization's sourcing capabilities to be, the more willing that partner will be to enter into the partnership.

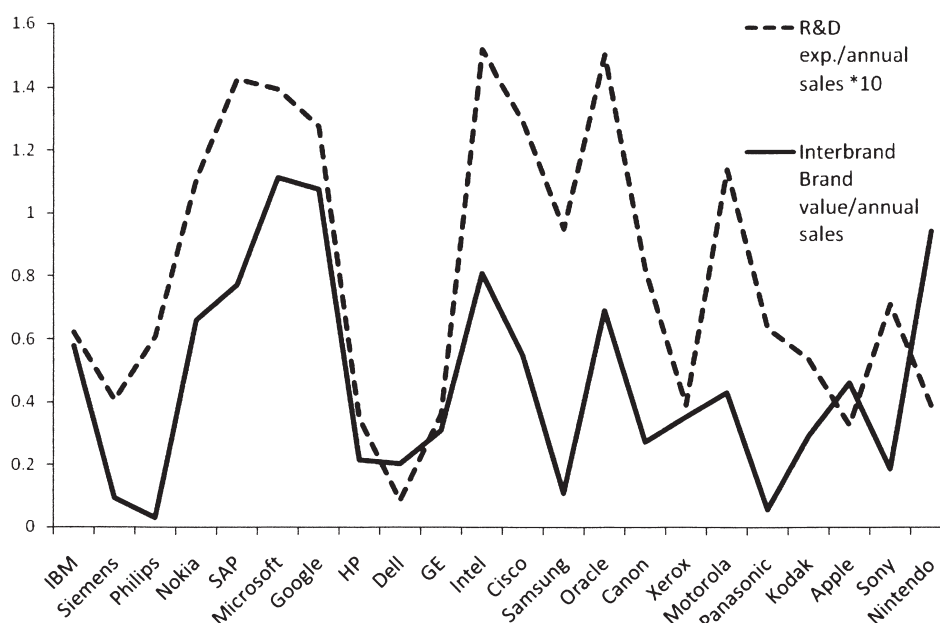


Figure 1.—There is a highly significant correlation between the R&D expenditures/annual sales and Interbrand brand values/annual sales ratios. The relevant values were drawn from the companies' 2007 annual reports and the 2007 Interbrand ranking list.

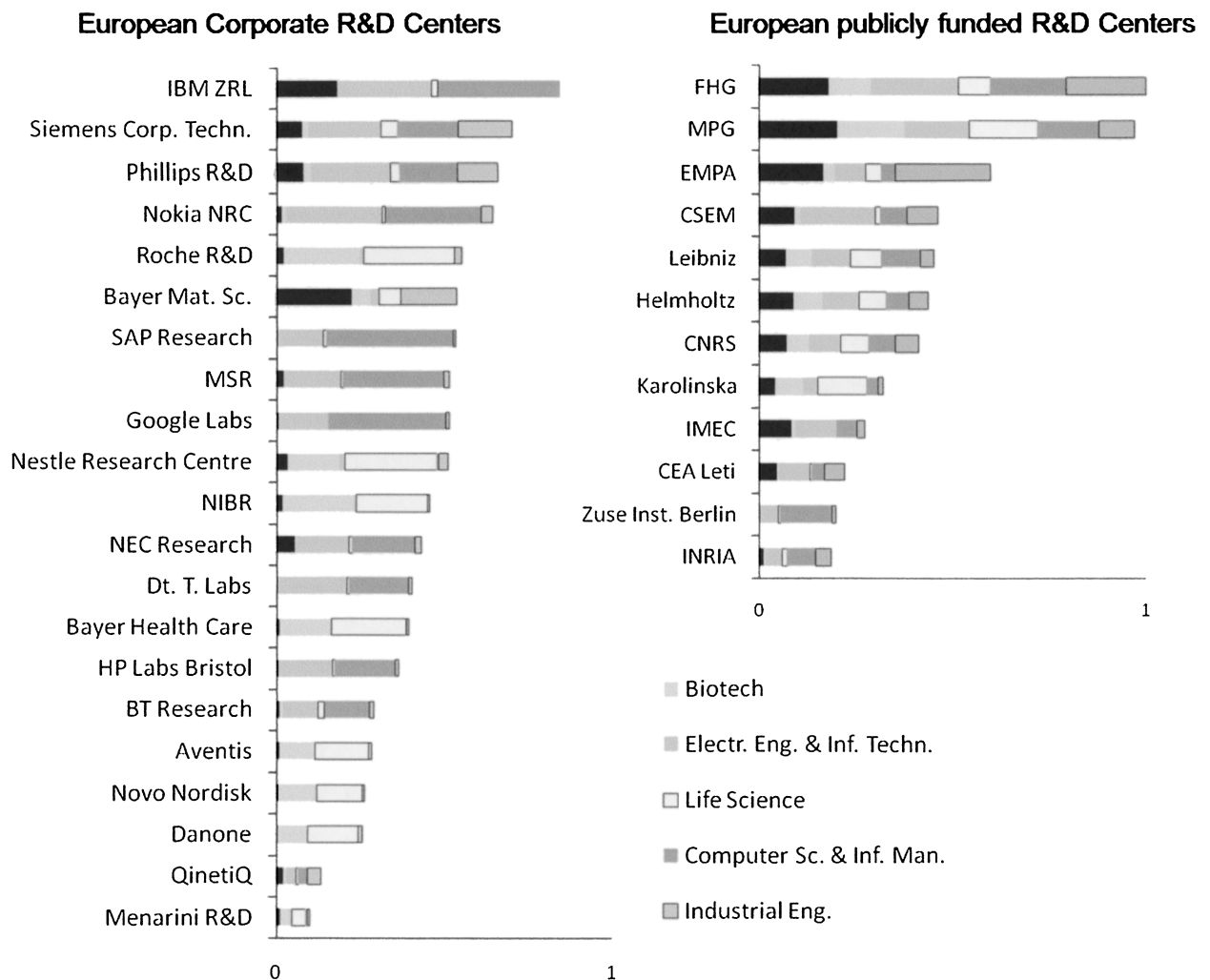


Figure 2.—Reputation ranking (5-point scale from medium to exceptional) of selected private and public European R&D institutions. The values are normalized with respect to the top-ranking German Fraunhofer Association (FHG). The scientific areas with which the ranked institutions are associated are also indicated.

Abbreviations.—FHG: German Fraunhofer Association; MPG: German Max Planck Association; IBM ZRL: IBM Zurich Research Laboratory; EMPA: Swiss Federal Laboratories for Materials Testing and Research; CSEM: Centre Suisse d'Electronique et de Microtechnique; CNRS: Centre national de la recherche scientifique (France); CEA Leti: L'innovation au service de l'industrie (France); MSR: Microsoft Research Cambridge (UK); NIBR: Novartis Institutes for BioMedical Research; Dt. T. Labs: German Telekom Labs.

An R&D organization's risk-taking attitude is associated with its reputation, which is in turn another important partnering selection criterion. An industrial R&D organization's overall reputation is, finally, highly correlated with its popular and scientific visibility in terms of the number of publications in academic journals and conference proceedings.

Implications for Managers

Based on these findings, we deduce that:

- Targeted communication in A-level popular and business-related media is a must—not a nice-to-have—

if an R&D organization is to be regarded as highly reputable.

- Greater recognition as a research organization can be achieved through selective appearance at trade shows and exhibitions, where the scientists responsible for the specific technology should be present.
- In addition to media reports and arranging exhibitions, marketing efforts should include the publishing of image-reflecting brochures and journals inside the research organization. It is crucial that the context should contain suitably in-depth information. In this respect, successful practices include Siemens' *Pictures of the Future*, Philips' *Password* magazine, and the IBM

Journal of R&D. Because the above-mentioned actions require a professional approach, research communication professionals should lead them.

- Our findings further suggest that scientific publications can be effectively used to enhance the reputation of corporate R&D. Achieving a reputation among the specialist community is one of the most important results that R&D can produce (4). Therefore, encouraging engineers and scientists to publish in scientific journals, to attend conferences, and to allow for functions in the broader scientific community is a key element in successful reputation management.
- However, reputation enhancement initiatives have to heed the industrial environment. Publication is not always beneficial. In certain industries, like the fast-moving consumer goods industry, success depends on the pace at which innovations are introduced to the marketplace. The publication of basic research would consequently be counterproductive since first-mover advantages and, thus, consumer's perceptions of innovation leadership would get lost. Technology companies with longer innovation cycles should view publication issues differently, particularly those that separate the R from the D. Even if scientific results were not to have an immediate effect on the marketplace, it could still be worth informing the community about them for reputational purposes.
- Publication in popular or academic media is one side of the coin. The other side is based on behavioral branding; a reputation can only be maintained if the researchers behave accordingly. Key issues are: an open mindset, flexibility in cooperative projects, and risk orientation.
- Depending on the company's strategic direction, it is necessary to define some perception goals for corporate R&D. Examples of such goals are: sustainability, innovativeness, advanced technologies, world-class research, and an attractive environment.

Recommended Actions

- A corporate R&D center's popular visibility can attract external resources, but professional research communication is of the utmost importance. Large firms such as IBM and Siemens have a research communication officer. Other firms rely on long-term relations with external PR agencies focused on research communication.
- As a proxy for an R&D organization's reputation, scientific visibility requires that researchers be encouraged to publish. Publication targets need to be balanced with the need for IP protection and should therefore be formulated carefully and explicitly.
- The enhancement of an R&D organization's sourcing capabilities requires a culture that tolerates risk and

failure. 3M's 15-percent rule and Google's "playground" are well known examples of such a culture.

- To be an attractive partner in an open innovation environment, knowledge and capabilities must be accessible. Therefore, organizations should allow mobility within the network, and encourage their employees to become a node in the open innovation ecosystem. Procter & Gamble, for instance, has 70 technology entrepreneurs who mainly open up R&D labs and speak at conferences.
- Organizations should provide more profound values and communicate them. This is exemplified by Novartis' CEO Daniel Vasella, who noted: "One way of fostering innovation is to align our business with our ideals."
- Expectations have to be managed: Philip Morris Corporate R&D Lab works hard at reinventing itself and, thus, the firm, with new technologies, products and a new mindset as well.
- Research communication does not only report on and distribute the research output, but also positions the company and its corporate R&D. A clear media strategy should therefore be developed. Business-to-business companies often ignore the mass media when communicating their research results.
- Finally, in open innovation environments, it is especially important to be consistent with messages to internal researchers and external R&D stakeholders.

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